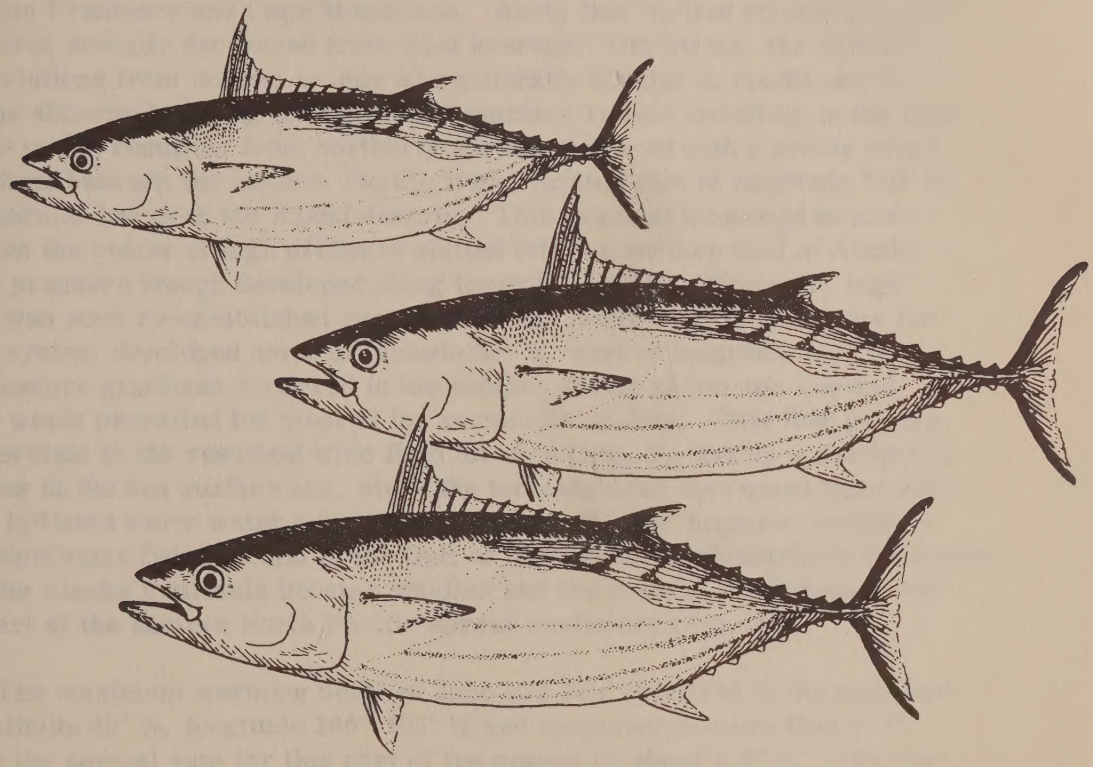
JULY 1971

FISHING INFORMATION

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



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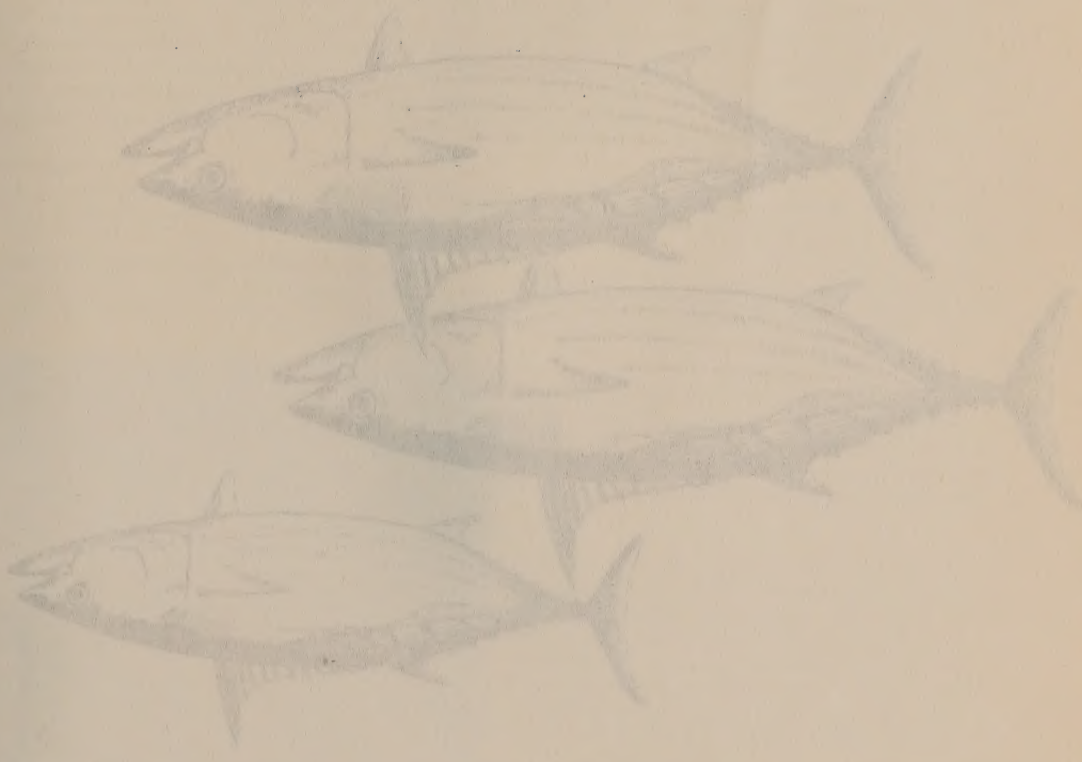

FISHING INFORMATION

UNITED STATES DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY - PART 2

NARRATIVE DESCRIPTION OF OCEAN TEMPERATURE CONDITIONS

Northeastern Pacific

Seasonal warming of surface temperatures in the California Current region was about average from June to July 1971, except for the coastal area between San Francisco and Cape Mendocino. Along this limited stretch of coast temperatures actually decreased from June average. Otherwise, the distribution of deviations from normal in July was generally similar to conditions in June. The abnormal cooling north of San Francisco reflect upwelling in the first half of the month resulting from northerly winds associated with a strong pressure gradient between the eastern Pacific High, located east of longitude 140° W, and the thermal low over the inland deserts. This gradient weakened at mid-month when the center of high pressure shifted into the eastern Gulf of Alaska and a low pressure trough developed along longitude 115° W. However, high pressure was soon re-established over the eastern North Pacific and a new low pressure system developed north of latitude 50° N, west of longitude 165° W. Strong pressure gradients occurred in the eastern sector of the new low and southerly winds prevailed for most of the remainder of July. This flow pattern, which is evident in the resultant wind field for July (Fig. 9), set up a northward wind stress at the sea surface and, since the temperatures decreased from south to north, initiated warm water advection. As a result, the negative deviations of sea temperature from normal in the Gulf of Alaska and particularly in the region south of the Alaska Peninsula became smaller and the positive deviations in the central part of the eastern North Pacific spread northward (Fig. 3).

The maximum warming between June and July occurred in the neighborhood of latitude 40° N, longitude 160°-165° W and amounted to more than 5° C, exceeding the normal rate for this part of the season by about 1.5° C. The contribution of warm water advection from the south through wind stress action in producing the excess warming appears to have been most important north of latitude 40° N. East of longitude 155° W, between 35° N and 40° N, the warming was accelerated by increased solar heating and, to a lesser extent, by reduced loss of heat through evaporation. These effects resulted from below normal cloudiness and light winds near the centers of high pressure systems. The average location of maximum pressure in July 1971, was along latitude 40° N, between 135° W and 150° W (Fig. 9).

Eastern Tropical Pacific

Sea surface temperatures east of the Galapagos Islands between latitudes 5° N and 5° S failed to decrease at the normal seasonal rate in July 1971 so that the below normal condition existing in June was reduced. Equatorial upwelling

increased west of the Galapagos Islands to about longitude 135° W resulting in a cold tongue along the equator to about 7° N latitude where temperature deviations were as much as 4° F below normal (Figs. 5 and 6).

Sea temperatures were above normal out to several hundred miles off Central America and near shore temperatures between Acapulco and Corinto were more than 2° F above the long term mean.

Along latitude 10° N, a zone of warm water (above 80° F) extends westward from Central America (Fig. 5) and coincides approximately with the ITCZ (Inter-Tropical Convergence Zone). The high heat content of this warm water is a source of energy for maintaining the squalls and tropical storms which characterize the ITCZ from July through September. These tropical disturbances were particularly active in July of this year, which probably accounts for the patches of below normal temperatures along the 10° parallel of north latitude. While intense cyclonic activity tends to "feed" on warm ocean areas, it can also cause surface cooling through increased cloudiness (cutting off insolation), through mixing of surface water with colder subsurface water and through upwelling due to surface divergence caused by cyclonic wind stresses.

Staff, Fishery-Oceanography Group
R. Michael Laurs, Leader

SEA SURFACE TEMPERATURE CHARTS, PACIFIC OCEAN

JULY 1971

Acknowledgements

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National Marine Fisheries Service, Biological Laboratories La Jolla, California; Honolulu, Hawaii; Seattle, Washington
National Weather Service, San Diego, California
National Ocean Survey, Pacific Marine Center, Seattle, Washington
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Scripps Institution of Oceanography Research Vessel MELVILLE, ALPHA HELIX
University of Washington, Seattle, Washington; R/V THOMAS THOMPSON
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Fishing Vessels ANTONIA C, CONQUEST, INDEPENDENCE, KERRI M, LOU JEAN II, MARIETTA, QUEEN MARY, TYPHOON, VIVIAN ANN

Charts

Figure 1. -- Mean sea surface temperature, eastern north Pacific Ocean, Squares show temperatures at weather ship stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 2. -- Mean sea surface temperature chart, western north Pacific Ocean.

Figure 3. -- Deviation of sea surface temperatures, eastern north Pacific Ocean from long term charts of H. O 225. Hatched areas are colder in 1971.

Figure 4. -- Deviation of sea surface temperatures, eastern north Pacific Ocean from those of July 1970. Hatched areas are colder in 1971.

Figure 5. -- Mean sea surface temperature, eastern tropical Pacific Ocean. Numerals on shore are temperatures at coastal stations.

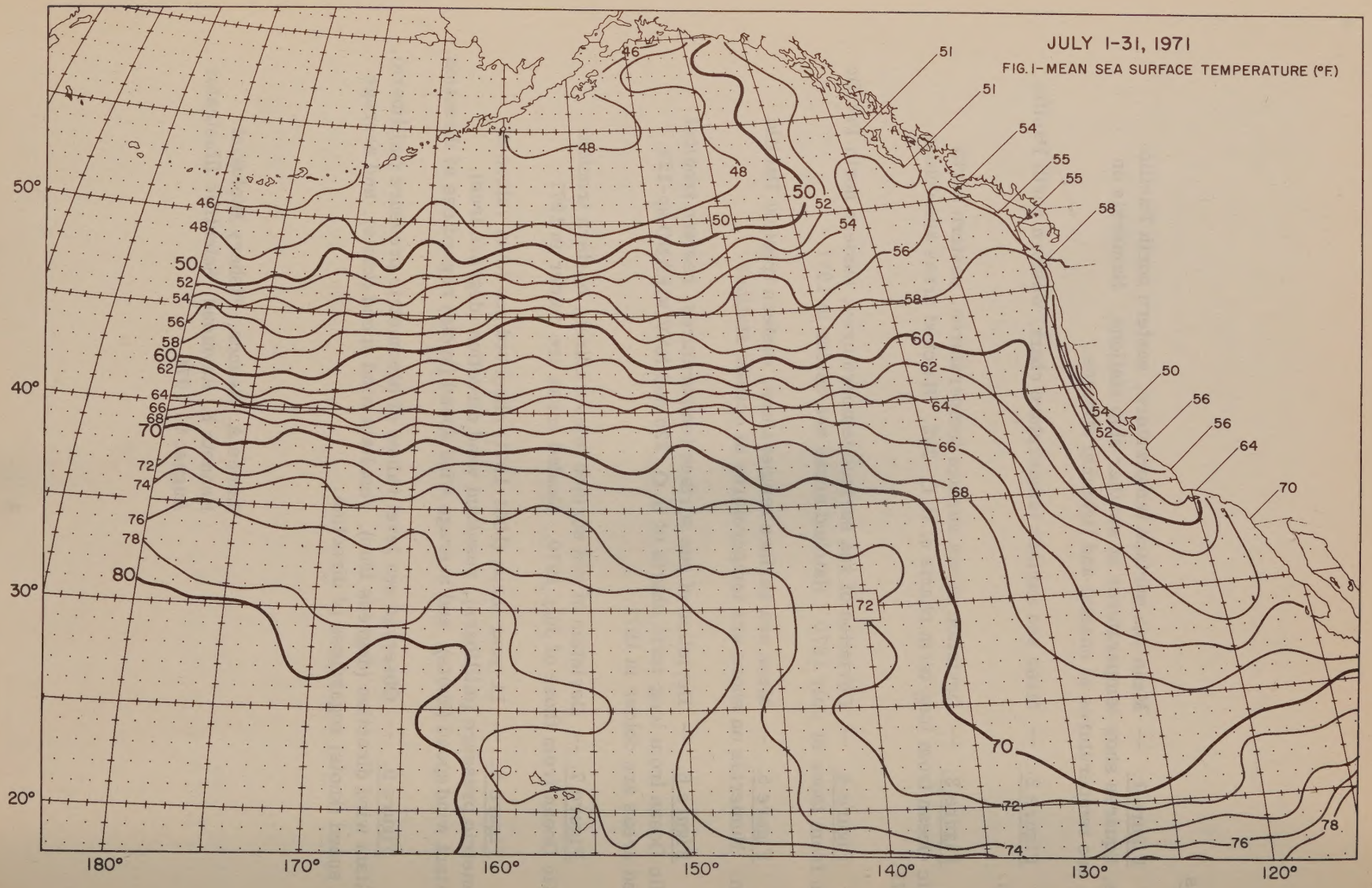
Figure 6. -- Deviation of sea surface temperatures, eastern tropical Pacific Ocean from long-term charts of H. O. 225 and NAVOCEANO sp-123. Shaded areas are colder in 1971.

Figure 7. -- Deviation of sea surface temperatures, eastern tropical Pacific Ocean from those of July 1970. Shaded areas are colder in 1971.

Figure 8. -- 11-year mean (1961-1971) observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots), and average wind speed (knots) regardless of direction.

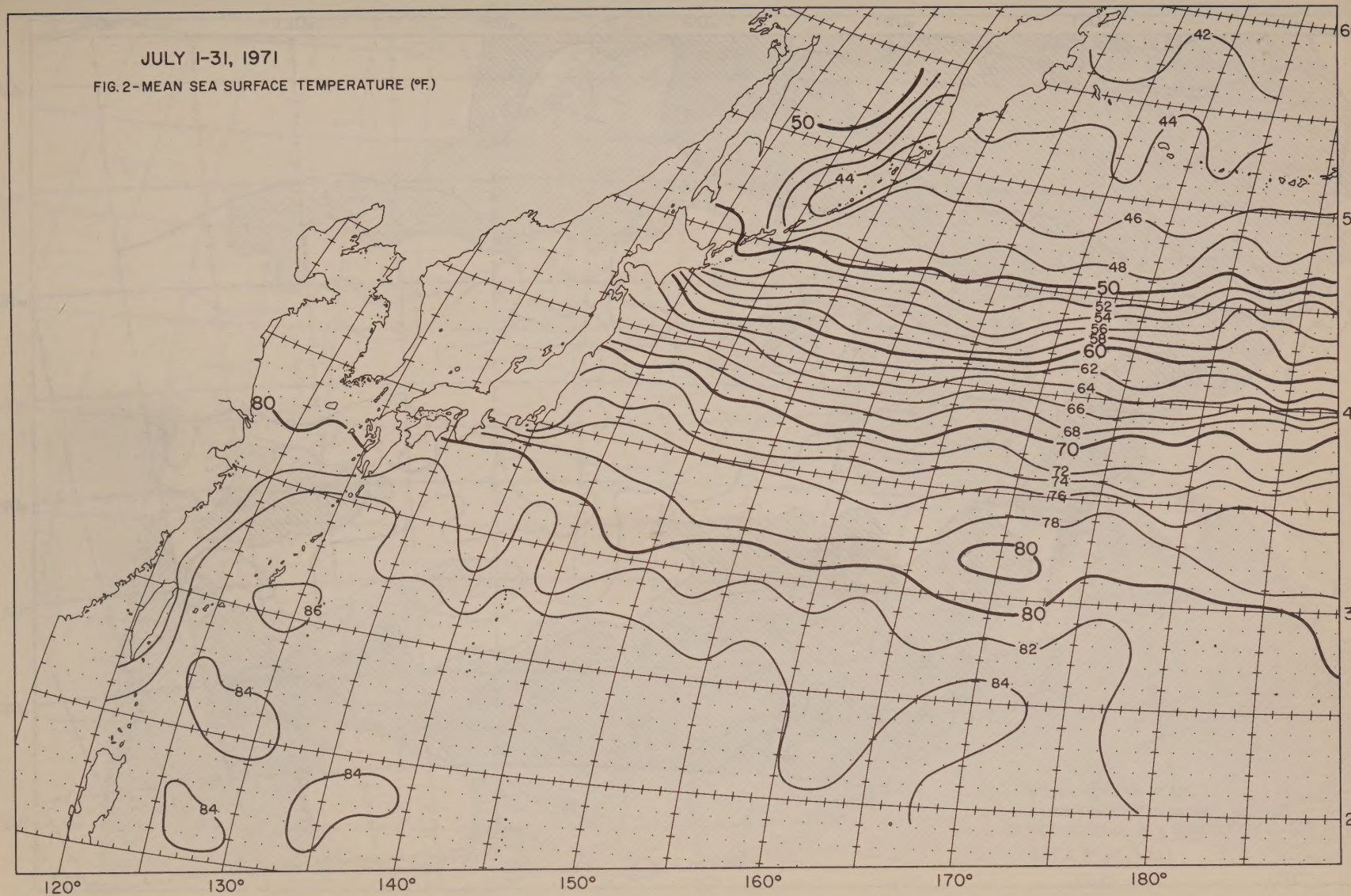
Figure 9. -- Observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots), and average wind speed (knots) regardless of direction.

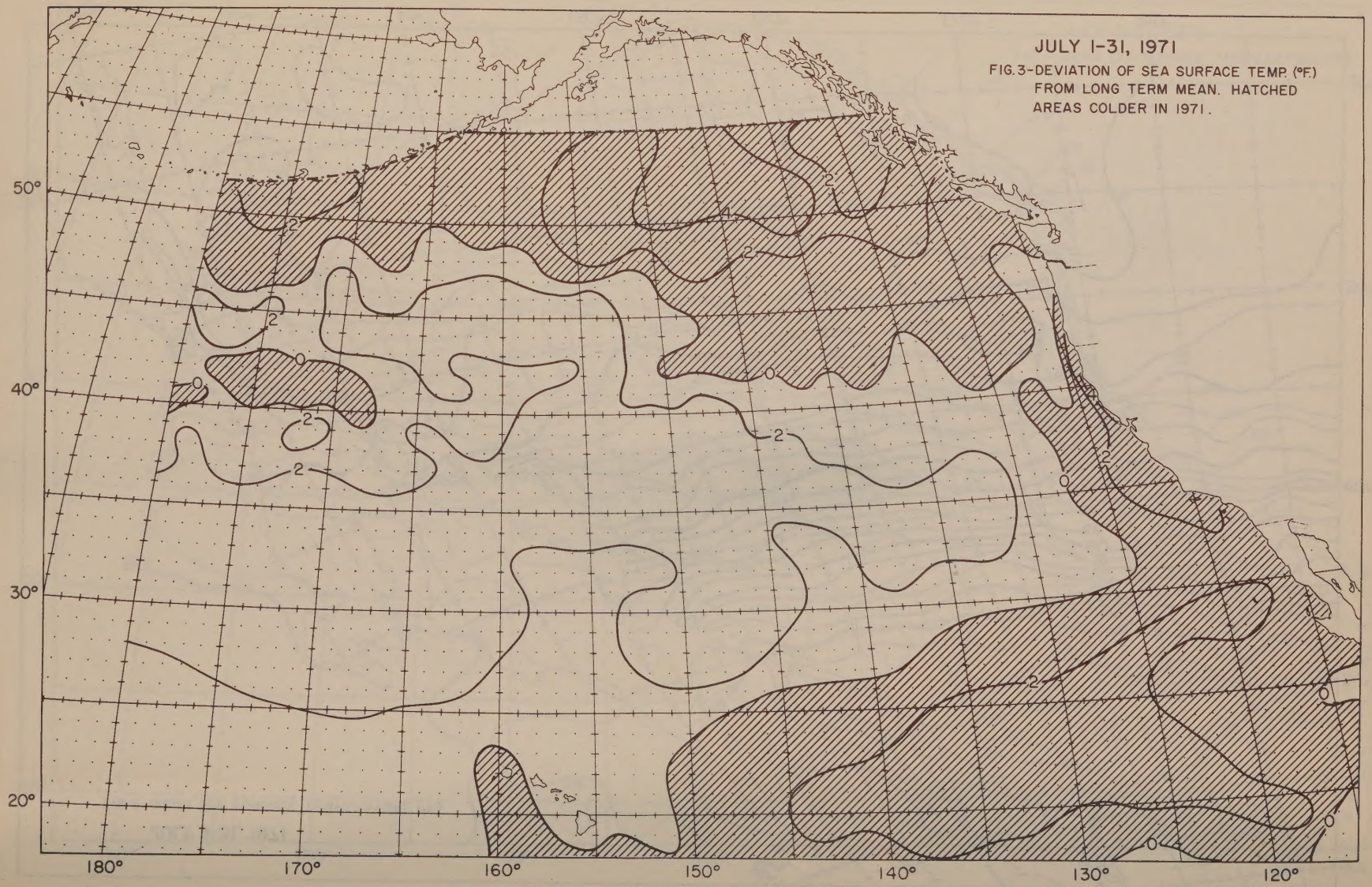
James A. Renner, Fishery Biologist
Kenneth S. Raymond, Scientific Illustrator
August 9, 1971

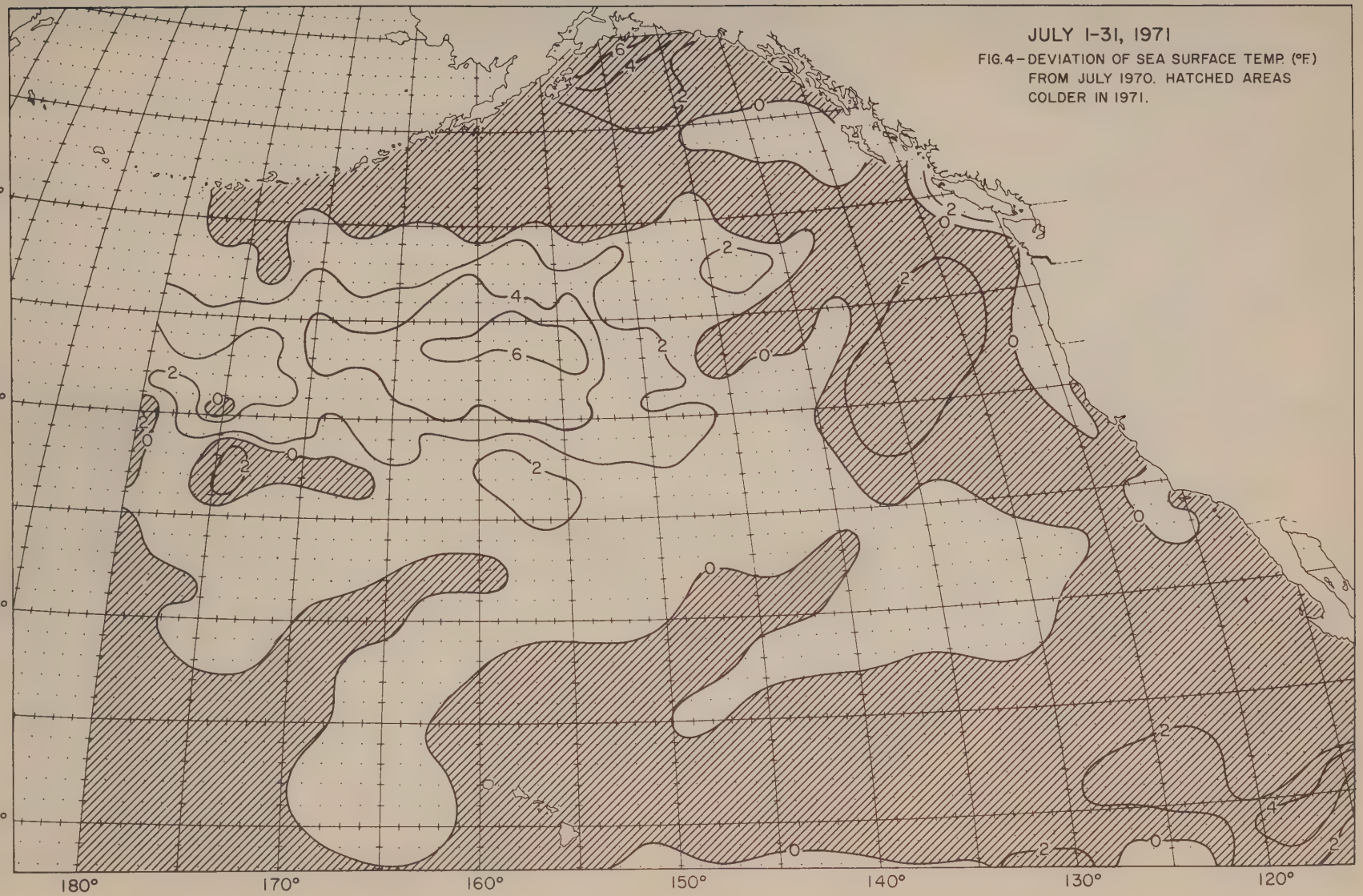

JULY 1-31, 1971
FIG. 1 - MEAN SEA SURFACE TEMPERATURE (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

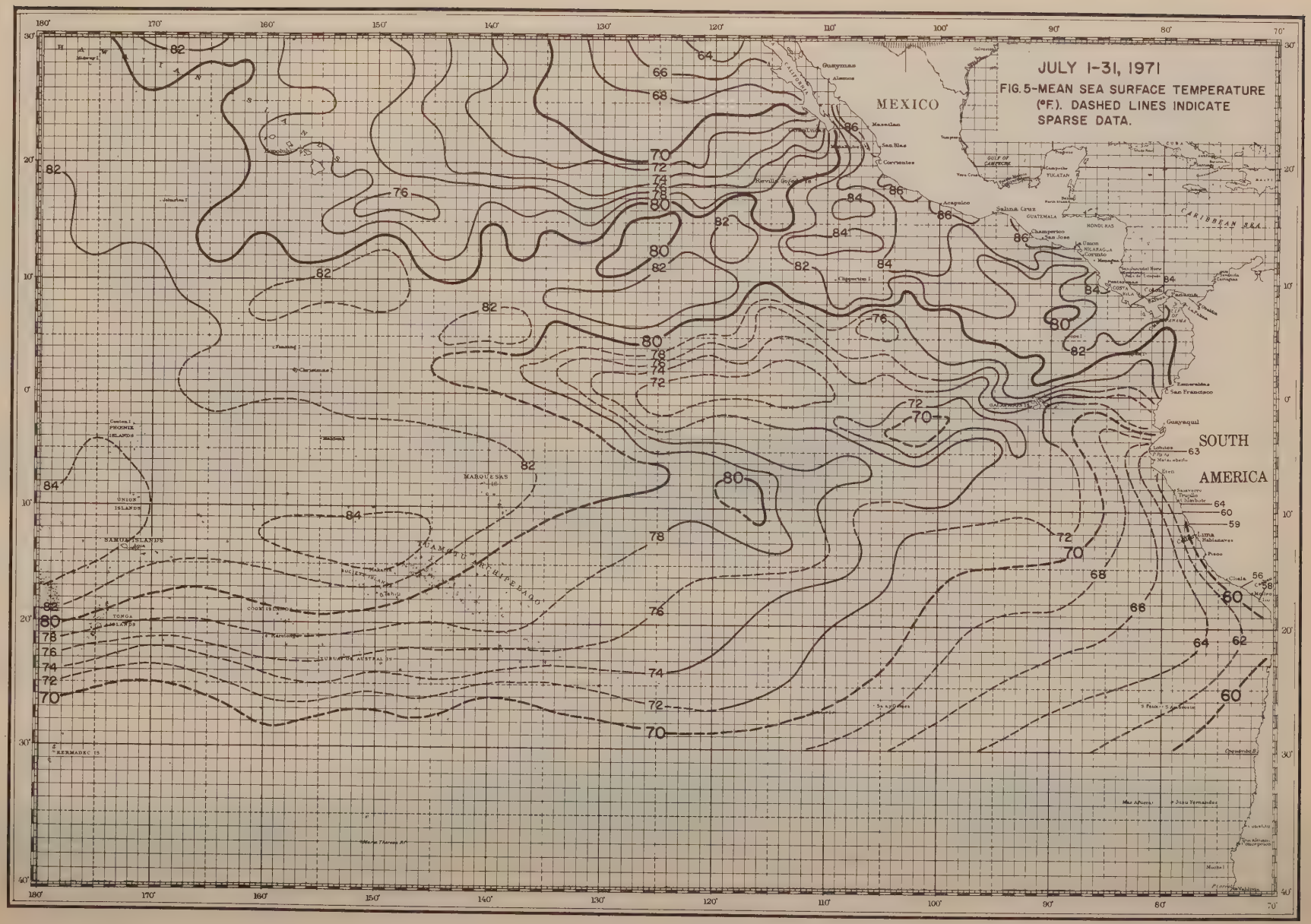
JULY 1-31, 1971

FIG. 2-MEAN SEA SURFACE TEMPERATURE (°F.)

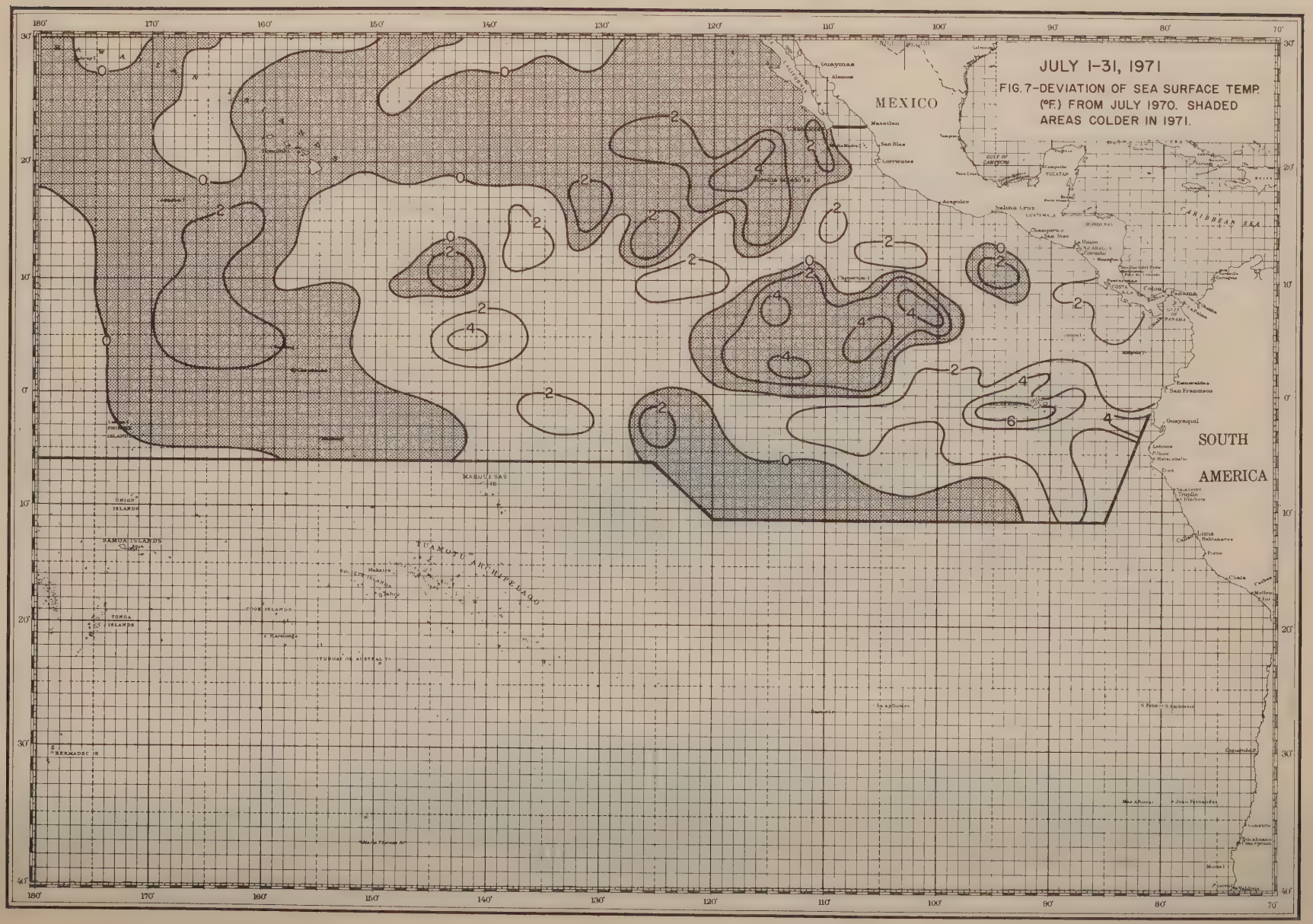


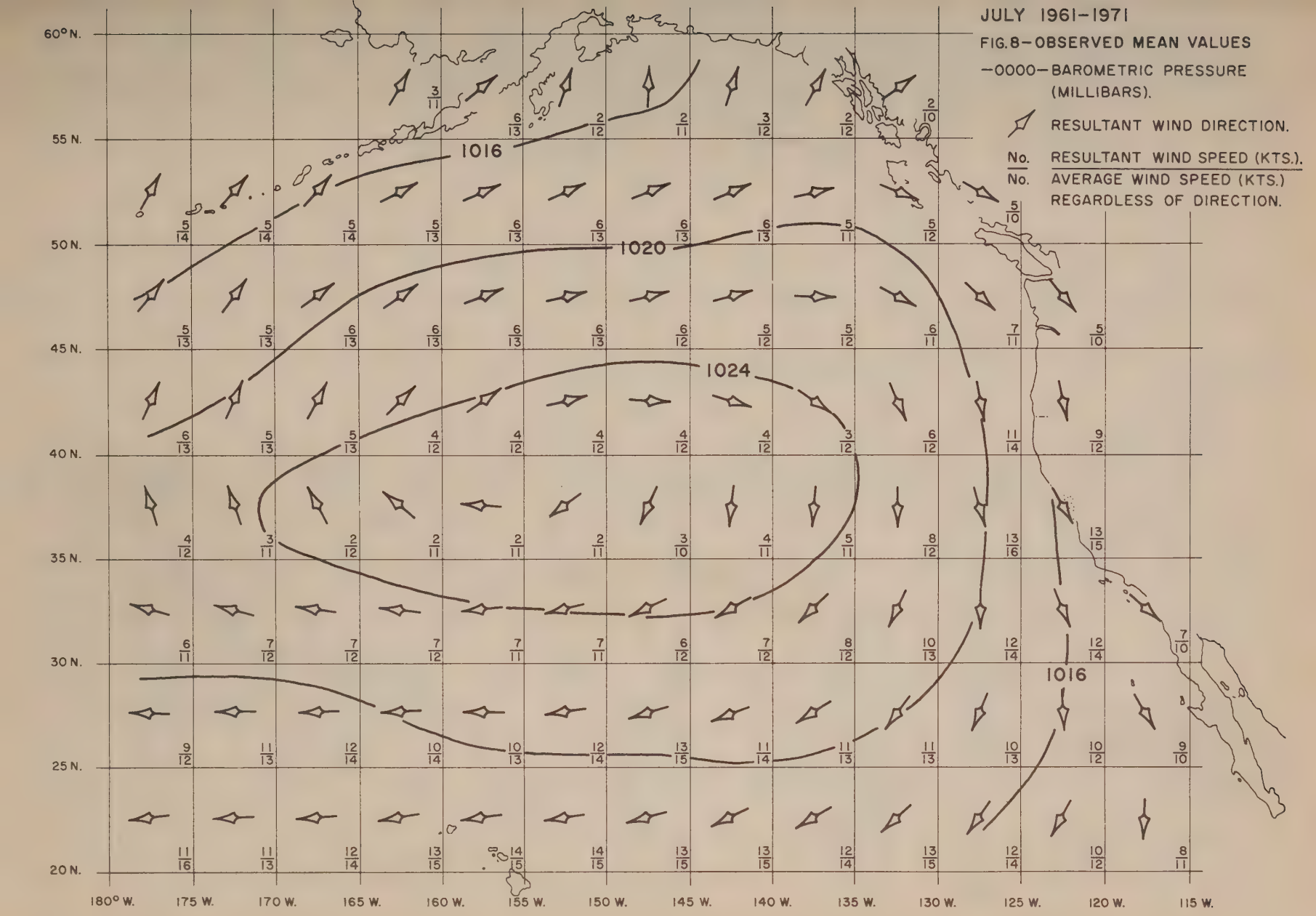

JULY 1-31, 1971
FIG. 3-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1971.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
2
0
-2

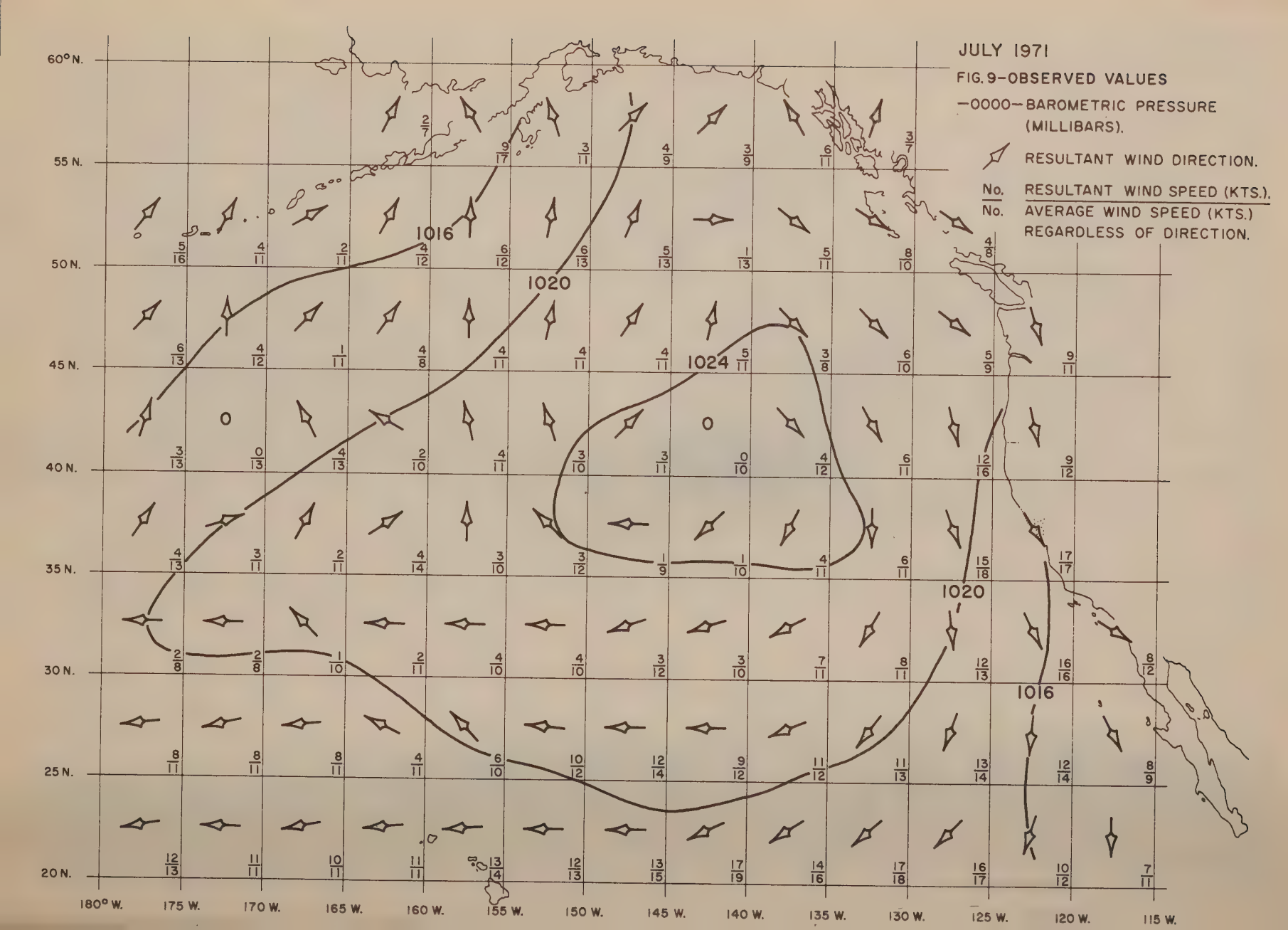

JULY 1-31, 1971
FIG.4-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM JULY 1970. HATCHED AREAS COLDER IN 1971.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

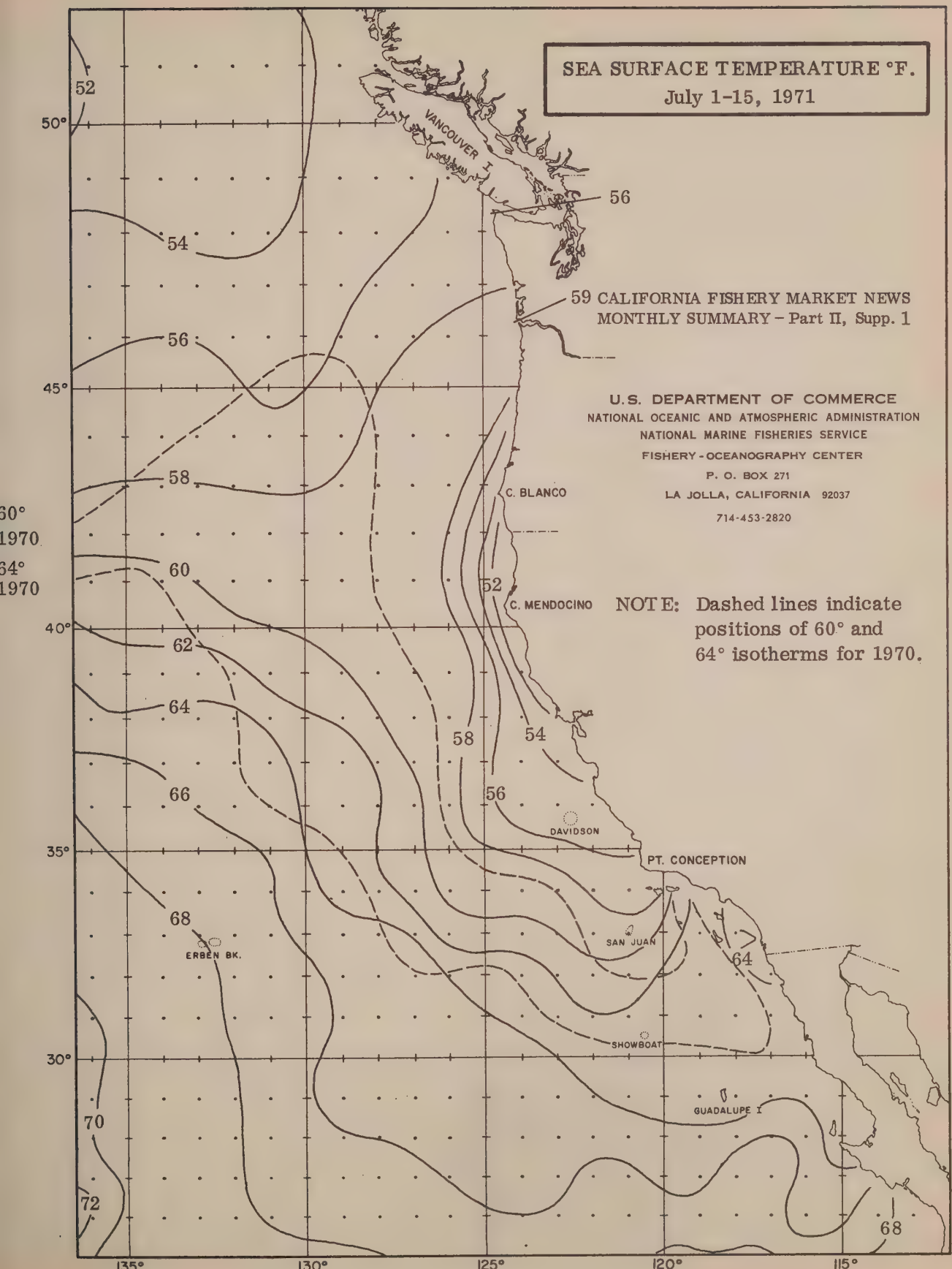

JULY 1-31, 1971
FIG. 5-MEAN SEA SURFACE TEMPERATURE (°F). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
CUBA
YUCATAN
GULF OF CAMPECHE
CALIFORNIA
Guaymas
Mazatlan
San Blas
Corrientes
Acapulco
Salina Cruz
Champerico
San Jose
Corinto
Puntarenas
Balboa
Panama
Esmeraldas
San Francisco
Guayaquil
Lobitos
Talara
Callao
Lima
Pisco
Chala
Arica
Iquique
Antofagasta
Valparaiso
Juan Fernandez
Mas Afuera
Mas a Tierra
Galapagos Is
Clipperton I
Revilla Gigedo Is
Socorro I
Johnston I
Fanning
Christmas
Palmyra
Jarvis
Canton I
PHOENIX ISLANDS
UNION ISLANDS
SAMOA ISLANDS
TONGA ISLANDS
MARQUESAS
TUAMOTU ARCHIPELAGO
LINE ISLANDS
COOK ISLANDS
TUBUAI OR AUSTRAL IS
KERMADEC IS
82
80
78
76
74
72
70
68
66
64
62
60
84
86
63
59
58
56

JULY 1-31, 1971
FIG.6-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN.
SHADED AREAS COLDER IN 1971.
MEXICO
SOUTH AMERICA
CENTRAL AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
GULF OF PANAMA
GALAPAGOS IS.
MARQUESAS IS.
TUAMOTU ARCHIPELAGO
HAWAIIAN IS.
PHOENIX ISLANDS
UNION ISLANDS
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
SOCIETY ISLANDS
KERMADEC IS.
Guaymas
Mazatlan
San Blas
Acapulco
Salina Cruz
Chiapas
Panama
Guayaquil
Lima
Callao
Chala
Pisco
Iquique
Arica
Valparaiso
Juan Fernandez
Easter I.
Tahiti
Papeete
Rarotonga
Pago Pago
Honolulu
Johnston I.
Canton I.
Christmas I.
Fanning I.
Palmyra I.
Howland I.
Baker I.
Coopos I.
Malpelo I.
Cocos I.
Tropic of Cancer
Equator


JULY 1-31, 1971
FIG. 7-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM JULY 1970. SHADED AREAS COLDER IN 1971.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
GULF OF PANAMA
Guaymas
Mazatlan
San Blas
Corrientes
Acapulco
Salina Cruz
Champerico
San Jose
Corinto
Balboa
Cristobal
Colon
Panama
Esmeraldas
San Francisco
Guayaquil
Lobitos
Talara
Payta
Pisco
Lima
Callao
Chimbote
Chile
Mollendo
Arica
Iquique
Antofagasta
Coquimbo
Valparaiso
Juan Fernandez
Mas a Tierra
Mas a Fuera
Easter I.
Marquesas Is.
Tuamotu Archipelago
Tahiti
Cook Islands
Samoa Islands
Tonga Islands
Union Islands
Phoenix Islands
Line Islands
Kermadec Is.
Tubuai Is.
Austral Is.
Marquesas
Galapagos
Hawaiian Is.
Johnston I.
Palmyra I.
Howland I.
Baker I.
Jarvis I.
Canton I.
Enderbury I.
Christmas I.
Fanning I.
Washington I.
Malden I.
Starbuck I.
Flint I.
Vostok I.
Caroline I.
Ocean I.
Nauru I.
Gilbert Is.
Ellice Is.
Tokelau Is.
Funafuti
Nukufetau
Nanumea
Nanumanga
Niutao
Nukulaelae
Vaitupu
Nukunonu
Atafu
Rakahanga
Manihiki
Penrhyn I.
Pukapuka
Suwarrow I.
Rarotonga
Aitutaki
Manuae
Mitiaro
Atiu
Mauke
Rimatara
Rurutu
Tubuai
Raivavae
Rapa
Marotiri
Pitcairn I.
Henderson I.
Ducie I.
Oeno I.
Mangareva
Temoe
Nukutavake
Pukarua
Reao
Pinaki
Hao
Amanu
Tatakoto
Anaa
Makatea
Takaroa
Takapoto
Manihi
Ahe
Arutua
Kaukura
Apataki
Tikehau
Rangiroa
Nihiru
Fakarava
Toau
Raroia
Aratika
Taenga
Faaite
Kauehi
Aratika
Fakahina
Hikueru
Marutea
Reitoru
Clipperton I.
Socorro I.
Revillagigedo Is.
Guadalupe I.
Cedros I.
Isla Natividad
Isla Asuncion
Isla Cedros
Isla Magdalena
Isla Margarita
Isla Tiburon
Isla Angel de la Guarda
Isla Partida
Isla Carmen
Isla Coronados
Isla Santa Catalina
Isla Cerralvo
Isla Espiritu Santo
Isla Monserrate
Isla Danzante
Isla Santa Inez
Isla Santa Cruz
Isla Santa Rosalia
Isla Santa Margarita
Isla Santa Maria
Isla Santa Barbara
Isla Santa Clara
Isla Santa Ana
Isla Santa Isabel
Isla Santa Teresa
Isla Santa Lucia
Isla Santa Rosa


JULY 1961–1971
FIG.8–OBSERVED MEAN VALUES
—0000—BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


JULY 1971
FIG. 9-OBSERVED VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1020
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


SEA SURFACE TEMPERATURE °F.
July 1-15, 1971
VANCOUVER I.
52
54
56
59
56
58
60
62
64
66
68
70
72
58
54
56
52
64
68
70
72
68
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
GUADALUPE I
ERBEN BK.
60° 1970
64° 1970
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY – Part II, Supp. 1
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
FISHERY-OCEANOGRAPHY CENTER
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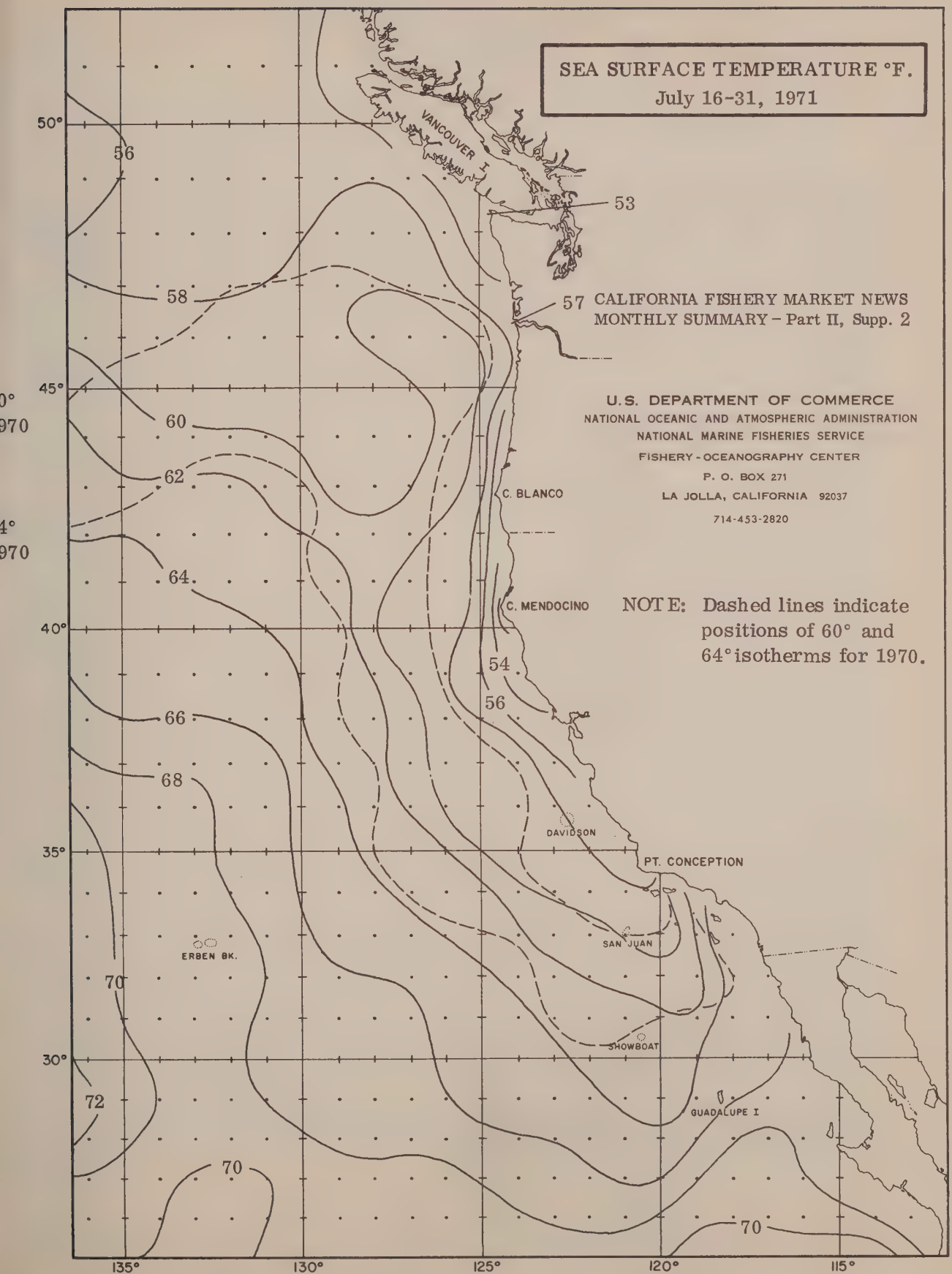
LA JOLLA, CALIFORNIA 92037
714-453-2820
NOTE: Dashed lines indicate positions of 60° and 64° isotherms for 1970.


SEA SURFACE TEMPERATURE °F.
July 16-31, 1971
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY – Part II, Supp. 2
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
FISHERY-OCEANOGRAPHY CENTER
P. O. BOX 271
LA JOLLA, CALIFORNIA 92037
714-453-2820
NOTE: Dashed lines indicate positions of 60° and 64° isotherms for 1970.
VANCOUVER I
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
GUADALUPE I
ERBEN BK.
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°
56
53
58
57
60
62
64
54
56
66
68
70
72
70
70

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Fishery-Oceanography Center
La Jolla, California 92037

BULLETIN NO. 71-2

EARLY ALBACORE SEASON UNDERWAY

The 1971 albacore price settlement was announced on July 2, and the 1971 commercial albacore fishery got underway the earliest in 3 years. The albacore price is 630 dollars per ton (31-1/2 cents per pound) delivered to the canneries for the first 25,000 tons of the season. The price differential by port is essentially the same as last year. In addition, 10 dollars per ton is being paid into a fund for use in albacore research and scouting activities.

A small number of jig boats and some of the smaller bait boats left ports immediately after the price settlement, but the majority of the jig fleet was not on the fishing grounds until the second week in July. By July 6, commercial fishing had developed in two widely separated areas; one in the south extending from San Clemente Island to San Martin Island, Baja California; the other in the north about 120 miles off Newport, Oregon. The area off southern and Baja California quickly developed into the best start since before 1967. During the first week of July albacore were reported as close as 15 miles offshore from Oceanside to San Martin Island. Commercial scores averaged 70-100 fish per day with occasional highs exceeding 200 fish. The best commercial catches were reported from off Cape Colnett to off San Martin Island. Other good catches were made in the area about 10 miles south of San Clemente Island to the Dumping Grounds, Sixty Mile Bank, the 213 fathom spot, and 10-20 miles south of the Coronado Islands. By the second week in July, lower catches were reported from San Clemente Island to 10-20 miles south of the Coronado Islands, but commercial scores improved from Cape Colnett to Geronimo Island, 20-40 miles offshore. Jig boat scores in this area on July 13 averaged 150-350 fish. Bait boats were also doing well on that day, with scores of up to 3 tons reported.

Off Oregon, the first indication of commercial quantities of fish was reported on July 5 by the F/V SUNRISE on a charter scouting cruise for the Oregon Fish Commission. SUNRISE caught 82 albacore about 120 miles offshore from Cascade Head to Reedsport in 57°-59° F water. By July 9, a small fleet of jig boats began fishing off Oregon 100-125 miles offshore from Cape Blanco to Cascade Head and reported catches of about 90 fish per day with occasional high scores up to 150 fish. Oregon State University R/V CAYUSE reported catching 10 albacore in 58°-59° F water and sighting several jig boats while on a hydrographic cruise out to 180 miles off Newport from July 9-11. On July 11, scores as high as 330 albacore were reported by a small number of jig boats off the Columbia River. Very good fishing was reported by a small number of jig boats about 50-60 miles off of Grays Harbor in 58°-59° F water on July 11, with high scores of 400-450 fish and several 100 fish scores for the day. However, by July 13 catches off Oregon and Washington dropped markedly to averages of less than 30 fish per day and at the end of the second week in July have remained at this level. Several boats that were fishing off Oregon and Washington are reported to have turned southward to explore other areas.

Albacore catches by sport boats operating out of southern California were good during the first week of July with most boats reporting daily catches of over three fish per passenger. Best sport boat fishing was in the area 10-20 miles south of the Coronado Islands. Sport catches dropped to less than one fish per passenger during the early part of the second week in July; however, by the end of the week catches improved to over two fish per passenger per day. Best sports fishing at the end of the second week in July was reported near the 295 fathom spot, about 65 miles south of San Diego.

Prevailing weather conditions during the July 1-15 period have decreased the rate of sea surface temperature seasonal warming by as much as 2° F below normal off Baja California out to Guadalupe Island and along the northern and central California coasts out to 130° W. Strong north to northwesterly winds that persisted during the past 15 days in these regions caused intense upwelling along shore and a southward transport of cooler water from more northern areas offshore. Consequently, sea surface temperatures are about 2° F below normal between latitudes 25° and 50° N and from the coast out to 135° W.

The average position of the 60° F isotherm during the July 1-15 period is much farther south this year than in 1970, particularly in an area between 40° and 45° N and 128° and 135° W. Temperatures optimal for albacore are expected to be farther offshore the Pacific Northwest coast this year during the last half of July. The decreased rate of warming mentioned above is keeping sea surface temperatures in an optimal range for catching albacore off southern California and Baja California south to 27° N.

According to information supplied by the Extended Forecast Division of the National Weather Service, sea level pressures are expected to be slightly below normal off the U.S. west coast from mid-July through mid-August. This condition should cause a decrease in the north to northwesterly wind flow off the California coast and a corresponding decrease in the intensity of upwelling. However, above normal temperatures are forecast for the Pacific Southwest during this period, creating a deeper-than-normal thermal low over this region. Thus, strong pressure gradients and the resulting winds could continue along the California coast.

During the next 2 weeks the offshore area between the Channel Islands and possibly as far south as Guadalupe Island should continue to yield good fishing. The area from Point Arena to Coos Bay has good potential if sea temperatures warm slightly and weather conditions permit fishing efforts. We do not expect a major fishing area to develop from central Oregon northward.

July 15, 1971

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UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
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JIG-FISHING PICKS UP IN NORTHERN CALIFORNIA WATERS, SLOWS IN SOUTHERN AND BAJA CALIFORNIA

The best area for jig-fishing for albacore at the end of July is in the region 50-100 miles off Eureka. Catches off Eureka have averaged 100-200 fish per day since July 26, mainly on 12-14 pound fish. Most fishing has been in 58°-59° F water, however, several boats reported catches of about 400 fish each on July 29 in 62° water. Scattered good catches were also reported off Fort Bragg and Crescent City during the last week of July.

Commercial albacore catches south and southwest of San Diego to Geronimo Island, Baja California decreased during the past 2 weeks. Jig catches in this area had averaged 100-150 fish per day since near the start of the season, but dropped to about 35-50 per day on July 27, and low scores continued to the end of the month. Jig fishing also decreased in the area 50-75 miles southwest of San Diego and near the 213 and 295 fathom spots. Many jig boats which had been fishing these southern waters have moved further north in anticipation of better fishing. Bait boat fishing has been fair to good, but spotty, in the southern area, however, catches up to 500-650 fish per day were reported by a small number of bait boats fishing near Geronimo Island during the last week of July.

Fishing in central California waters has been hampered by bad weather. However, catches of 75-300 fish per day have been reported when weather permitted fishing. Best fishing has been in the area of Davidson, Guide and Pioneer Seamounts and about 60 miles west of the Farallon Islands in 58°-59° F water.

Waters 50-100 miles offshore from about Newport, Oregon to La Push, Washington have yielded catches of 100-200 fish per day consistently during the last 10 days of July, however there were reports that fishing had fallen off sharply on August 1. Fishing has been mainly by jig boats with only small catches taken by bait boats. Best fishing has been in 60°-62° F water and fish have been averaging about 12 pounds.

About 4,000 tons of albacore was landed during July of this year. This is slightly more than was landed during July 1970, however, the season started nearly 2 weeks later in 1970. More than one-half of the albacore landed during this July was landed in California ports (mainly San Diego and San Pedro); during July 1970, only about 80 tons were landed in California.

For the most part albacore catches by sportsboats operating out of San Diego continued good during the last 2 weeks with only brief lulls. Catches have averaged 1-3 fish per passenger per day with fishing mainly in the area 80-75 miles southwest of San Diego. Continued good sportsboat fishing is expected during the next 2-week period.

The predominant weather features affecting sea surface temperatures in the eastern North Pacific during the last 2 weeks in July were a ridge of high pressure extending from Hawaii into the eastern Gulf of Alaska and a relaxation of the strong pressure gradients along the Oregon and California coasts. These conditions have allowed sea surface temperatures to warm by as much as 2° F above normal along most of the U.S. west coast through a combination of greater-than-normal heating across the air-sea interface and a decrease in coastal upwelling.

The average position of the 60° F isotherm for the July 16-31 period has moved to within 100 miles offshore between the California-Oregon border and the Columbia River, and in conjunction with the decreased winds has allowed a good jig boat fishery off northern California and central Oregon. Sea surface temperatures off southern California and northern Baja California are still slightly below normal and in a temperature range optimal for albacore.

According to information supplied by the Extended Forecast Division of the National Weather Service, sea level pressures are expected to be near normal off the U.S. west coast during August. Temperatures over the Pacific Southwest are expected to be much above normal during this period, creating a deeper-than-normal thermal low pressure pattern over this region. As a result of these conditions, strong pressure gradients and north-northwesterly winds should re-develop along the southern Oregon and California coasts with a corresponding increase in upwelling and decrease in coastal surface temperatures.

It is expected that catches off Eureka will diminish during the first week in August because of anticipated high wind conditions, however, good catches are expected when weather permits fishing. The area off central California in the vicinity of the seamounts continues to have good potential for jig fishing if weather conditions permit fishing efforts. A major fishing center is not expected to develop in southern California-Baja California waters, but fishing should improve to near the level it was during most of July. A similar outlook is indicated for Oregon-Washington waters.

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